

## **REMARKS**

### *Status of the Claims*

Claims 1-16 are pending; claims 10-16 are currently withdrawn; claims 1, 3-6 and 9 are currently amended; and new claims 17 and 18 have been added.

Claims 1, 3-6 and 9 have been amended and new claims 17 and 18 added to more clearly described the presently claimed invention. Support for the amendments to claim 1 and new claims 17 and 18 can be found in the original claims, and in the following portions of the Specification:

- Support for the limitation of preparing dendritic cells (DC) that are tumor-specific and that secrete IL12 by a process of activating DC is found in the first line of the fifth block of text on page 5 of the Specification and in lines 24-7 on page 8 of the Specification.
- Support for the limitation, “collecting DCs or DC precursor cells from a suitable source,” is found in the last line of page 7 in the Specification and in the first line of the 5<sup>th</sup> block of text on page 5.
- Support for the limitation, “loading the DCs of said DC culture with a tumor antigen or tumor antigen mixture,” is found in the first two lines of the 2<sup>nd</sup> block of text on page 5 of the Specification.
- Support for the limitation “exposing said DC culture to a concentration of LPS and a concentration of IFN- $\gamma$  effective to trigger the DC of said DC culture to secrete IL12 in a sustained manner” is found in lines 10-12 of the 4<sup>th</sup> block of text of page 3 of the Specification.

No new matter has been added.

*The Restriction Requirement*

The Examiner has made the Restriction Requirement final. (Office Action page 2-3). Applicants submit that this action is a clear error on the Examiner's part. In particular, the following statements made by the Examiner in defense of finding that USPN 6,479,254 by *Ebner et al.* anticipates the presently claimed invention amounts to a factual mischaracterization of *Ebner's* teachings:

*"Even though Ebner et al. do not express co-stimulation with LPS and IFN- $\gamma$ , IFN-  $\gamma$  is present in the circulation system since PBLs (both resting and active) secrete IFN-  $\gamma$  (see Fig. 9)." (Office Action page 2).*

Contrary to the Examiner's assertion, Figure 9 of the *Ebner* patent in fact teaches dose-response experiments which show that sAIM II stimulates human PBL cells to secrete IFN-  $\gamma$  in cell culture, and sAIM II is a member of the TNF-Ligand superfamily which induces apoptosis (*Ebner et al.* column 5, lines 18-27 and Abstract). It is well known that, under physiological conditions, IFN-  $\gamma$  is not present in the circulatory system in amounts sufficient to trigger the release of IL-12 as instantly claimed. Since *Ebner et al.* fails to teach the combined treatment of DCs with LPS and IFN-  $\gamma$ , the presently claimed invention is novel and nonobvious over *Ebner* patent.

In view of the foregoing points and discussion, the common technical feature of the claims does indeed provide a contribution over the prior art; so the common technical features of the claim is indeed special under PCT rule 13.2. It follows that there is unity of invention under PCT rule 13.1, and the Restriction Requirement is improper. Applicants therefore respectfully request rejoinder of the claims for examination in a single application.

## 1. Claim Rejections Under 35 USC § 102

The Examiner has rejected claims 1, 3-5 and 9 as allegedly anticipated by *Felzmann et al.* (2001). The Examiner's detailed reasoning for imposing this rejection can be found on pages 3-4 of the Office Action, and is not reproduced here. Applicants respectfully traverse.

Applicants point out that the *Felzmann* (2001) publication does not contain any teachings regarding advanced tumors that read on the presently claimed invention. In particular, the *Felzmann* (2001) publication teaches pulsing DCs with an antigen mixture obtained from LCL cultures transformed with Epstein Barr virus. (*Felzmann* (2001), section 2.4). Nowhere does the *Felzmann* publication teach loading DCs with tumor specific antigens as presently claimed. Because the *Felzmann* (2001) publication fails to teach all of the present claim elements, it is not an anticipating reference. Accordingly, Applicants respectfully request reconsideration and withdrawal of this anticipation rejection.

## 2. Claim Rejections Under 35 USC § 103

The Examiner has rejected claim 2 as allegedly obvious over *Felzmann* (2001) in view of *Asavaroengchai et al.* (2002). The Examiner has further rejected claims 6-8 as allegedly obvious over *Felzmann* (2001) in view of the *Reiser* (1999) and *Felzmann* (2000) publications. The Examiner's reasoning for imposing these rejections is found on pages 4-7 of the Office Action, and is not reproduced here. Applicants respectfully traverse.

As discussed above the *Felzmann* (2001) publication fails to teach the claimed element of loading DCs with tumor specific antigens. Since none of the other prior art references of record rescue this deficiency in the teachings of the *Felzmann* (2001) publication, even the combination of the prior art of record fails to teach the presently claimed invention. The Examiner has therefore failed to establish a *prima facie* case of obviousness, and the obviousness rejections

are improper. Accordingly, Applicants respectfully request reconsideration and withdrawal of all the obviousness rejections.

### **3. Claim Rejections Under 35 USC § 112, Second Paragraph**

The Examiner has rejected claims 1 and 4 as allegedly indefinite. Applicants have amended claims 1 and 4, thereby obviating these rejections.

### **4. Claim Objections**

The Examiner has objected to claim 1 due to a typographical error. Applicants have amended claim 1 to correct that error, thereby obviating the rejection.

### **5. Conclusion**

In view of the foregoing amendments and remarks, Applicants request immediate allowance of the claims, which define subject matter that meets all patentability statutory requirements.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a two (2) month extension of time for filing a reply in connection with the present application, and the required fee of \$225.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Len Svensson, Registration No. 33,330, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution of the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional

fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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